



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/692,801

10/27/2003

Atsushi Watanabe

392.1831

1084

21171

7590

02/28/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

GREENHUT, CHARLES N

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,801	Applicant(s) WATANABE ET AL.	
	Examiner Charles N. Greenhut	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

I. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim(s) 1-47 is/are rejected under 35 U.S.C. 102(b) as being anticipated by NELSON (US 6,723,174).

1.1. With respect to claim 1, NELSON discloses a first robot for holding and taking out a container and conveying the container to a predetermined position (900), a second robot for taking out an object contained in the container (970).

1.2. With respect to claim 2, NELSON discloses a first robot for holding and taking out a container and conveying the container to a predetermined position, a second robot with a sensor (980) for taking out an object contained in the container.

1.3. With respect to claim 3, NELSON additionally discloses the first robot changing position of the container.

1.4. With respect to claim 4, NELSON additionally discloses the first robot changing position of the container.

1.5. With respect to claim 5/1 and 5/2, NELSON additionally discloses the first robot having a sensor (714).

1.6. With respect to claim 6/1 and 6/2, NELSON additionally discloses a signal indicating the number of objects remaining in the container. (Col. 14 Li. 41-58)

- 1.7. With respect to claim 7/1 and 7/2, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.8. With respect to claim 8/1 and 8/2, NELSON additionally discloses a second robot notifying the first.
- 1.9. With respect to claim 9/1 and 9/2, NELSON additionally discloses the robot notifying the process.
- 1.10. With respect to claim 10/1 and 10/2, NELSON additionally discloses the robot placing objects on a temporary placing table (990).
- 1.11. With respect to claim 11/1 and 11/2, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot (826).
- 1.12. With respect to claim 12, NELSON discloses a first robot for holding and taking out a container and conveying the container to a predetermined position (900), a second robot (970) for placing an object in the container, the first robot conveying the container to a second process.
- 1.13. With respect to claim 13, NELSON discloses a first robot for holding and taking out a container and conveying the container to a predetermined position, a second robot with a sensor for placing an object in the container, the first robot conveying the container to a second process.
- 1.14. With respect to claim 14, NELSON additionally discloses the first robot changing position of the container.

- 1.15. With respect to claim 15, NELSON additionally discloses the first robot changing position of the container.
- 1.16. With respect to claim 16/12 and 16/13, NELSON additionally discloses the first robot having a sensor.
- 1.17. With respect to claim 17/12 and 17/13, NELSON additionally discloses a signal indicating the number of objects remaining in the container.
- 1.18. With respect to claim 18/12 and 18/13, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.19. With respect to claim 19/12 and 19/13, NELSON additionally discloses a second robot notifying the first.
- 1.20. With respect to claim 20/12 and 20/13, NELSON additionally discloses the robot removing objects on a temporary placing table.
- 1.21. With respect to claim 21/12 and 21/13, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.
- 1.22. With respect to claim 22, NELSON additionally discloses a visual sensor (Col. 14 Li 27).
- 1.23. With respect to claim 23, NELSON additionally discloses a three-dimensional position sensor.
- 1.24. With respect to claim 24, NELSON discloses holding and taking out a container containing objects by a first robot, conveying and positioning the container, and

holding and taking out an object and conveying the object to a process using a second robot.

- 1.25. With respect to claim 25, NELSON discloses holding and taking out a container containing objects by a first robot, conveying and positioning the container, holding and taking out an object and conveying the object to a process using a second robot and a sensor.
- 1.26. With respect to claim 26/24 and 26/25, NELSON additionally discloses the first robot changing position of the container.
- 1.27. With respect to claim 27/24 and 27/25, NELSON additionally discloses the first robot changing position of the container.
- 1.28. With respect to claim 28/24 and 28/25, NELSON additionally discloses holding the container based on the detected position.
- 1.29. With respect to claim 29/24 and 29/25, NELSON additionally discloses a signal indicating the number of objects remaining in the container.
- 1.30. With respect to claim 30/24 and 30/25, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.31. With respect to claim 31/24 and 31/25, NELSON additionally discloses notifying the first robot that the second holds the object.
- 1.32. With respect to claim 32/24 and 32/25, NELSON additionally discloses the robot notifying the process.

- 1.33. With respect to claim 33/24 and 33/25, NELSON additionally discloses the robot placing objects on a temporary placing table.
- 1.34. With respect to claim 34/24 and 34/25, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.
- 1.35. With respect to claim 35, NELSON discloses holding and taking out a container from the second process, conveying and positioning the held container using a first robot, sequentially holding and taking out objects from the first process, placing the objects in the container using the second robot and conveying the container using the first robot.
- 1.36. With respect to claim 36, NELSON discloses holding and taking out a container from the second process, conveying and positioning the held container using a first robot, sequentially holding and taking out objects from the first process, placing the objects in the container using the second robot, using a sensor, and conveying the container using the first robot.
- 1.37. With respect to claim 37, NELSON additionally discloses the first robot changing position of the container.
- 1.38. With respect to claim 38, NELSON additionally discloses the first robot changing position of the container.
- 1.39. With respect to claim 39/35 and 39/36, NELSON additionally discloses recognizing a position by a sensor.

- 1.40. With respect to claim 40/35 and 40/36, NELSON additionally discloses a signal indicating the number of objects remaining in the container.
- 1.41. With respect to claim 41/35 and 41/36, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.42. With respect to claim 42/35 and 42/36, NELSON additionally discloses a notifying the first robot that the object has been placed in the container.
- 1.43. With respect to claim 43/35 and 43/36, NELSON additionally discloses the robot removing objects on a temporary placing table.
- 1.44. With respect to claim 44/35 and 44/36, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.
- 1.45. With respect to claim 45/25 and 45/36, NELSON additionally discloses a visual sensor.
- 1.46. With respect to claim 46/25 and 46/36, NELSON additionally discloses a three-dimensional position sensor.
- 1.47. With respect to claim 47, NELSON discloses a first (900) and second (970) robot.

II. Response to Applicant's Arguments

Applicant's arguments entered 12/12/05 have been fully considered but are not persuasive.

1. With respect to claim 1, applicant argues that Nelson does not disclose a second robot conveying the held object to the second process.
 - 1.1. With respect to claims 1, the features upon which applicant relies (i.e., "a second robot conveying the held object to the second process") are not recited in the claim(s).

The claims merely require a second robot *for* conveying the held object. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Furthermore, a recitation of the intended use of the robot must result in a structural difference between the robot and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since robot (970) is clearly capable of conveying the held object to the second process, it meets the limitations of the claim.

1.2. With respect to claim 1, applicant further argues that that applicant's claims patentably distinguish over NELSON because the NELSON robot does not convey the objects to a process, but instead puts the objects in a carrier that is then conveyed to the process by another robot.

1.2(a) Though not required to meet the limitations of claim 1, robot (970) does in fact convey the held objects to a second process. The limitation "to a second process" as defined by applicant, firstly, does not require that no other conveying means are used during the second process as applicant suggests and, secondly, does not exclude the process of conveying itself as applicant suggests. Furthermore, through this argument applicant admits that NELSON meets the claimed limitations with robots (970) and (1000) as opposed to robots (900) and (970) as suggested by examiner. Applicant correctly states that NELSON does in fact disclose a number of robot pairs and containers containing objects that could be interpreted to meet the broad limitations of applicant's claim.

2. With respect to claims 12, 24, and 35, applicant argues that for reasons similar to those argued with respect to claim 1, claims 12, 24 and 35 patentably distinguish over NELSON.

2.1. Applicant does not point to any specific language within these claims which applicant feels patentably distinguishes over NELSON. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. While applicant argues that claims 12, 24 and 35 patentably distinguish over NELSON for reasons similar to those argued with respect to claim 1, applicant's argument regarding claim 1 can not be applied to claims 12, 24 and 35 because these claims contain pertinent language different from that of claim 1. It can not, therefore, be ascertained exactly what language of these claims applicant contends patentably distinguishes them from NELSON.

3. With respect to claim 2, applicant argues that NELSON does not disclose a sensor recognizing a position and/or orientation of the object using the sensor.

3.1. With respect to claim 2, the features upon which applicant relies (i.e., "a sensor recognizing a position and/or orientation of the object using the sensor") are not recited in the claim(s). The claims merely require a second robot with a sensor *for* holding and taking out an object. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Furthermore, a recitation of the intended use of the robot with a sensor must result in

a structural difference between the robot and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since robot (970) with a sensor (980)/(981) is clearly capable of holding and taking out an object, it meets the limitations of the claim.

3.2. With respect to claim 2, applicant further argues that NELSON does not disclose a sensor recognizing a position and/or orientation of the object using the sensor since robot (970) already has control of the wafer when scanned by scanner (980).

3.2(a) Though not required to meet the limitation of claim 2, the scanner (980) or pre-aligner (981) recognize a position and/or orientation of the object (Col. 17 Li. 63 et seq.). The scanner determines the identity of the held object and therefore its position (i.e., over the scanner) and the pre-aligner determines the orientation (e.g., in proper alignment). The limitation “a sensor recognizing a position and/or orientation of the object using the sensor” does not require that the recognition of the position and/or orientation of the object occur while the object is not being held by the second robot as applicant suggests.

4. With respect to claims 13, 25, and 36, applicant argues that for reasons similar to those argued with respect to claim 2, claims 13, 25 and 36 patentably distinguish over NELSON.

4.1. Applicant does not point to any specific language within these claims which applicant feels patentably distinguishes over NELSON. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the

claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. While applicant argues that claims 13, 25 and 36 patentably distinguish over NELSON for reasons similar to those argued with respect to claim 2, applicant's argument regarding claim 2 can not be applied to claims 13, 25 and 36 because these claims contain pertinent language different from that of claim 2. It can not, therefore, be ascertained exactly what language of these claims applicant contends patentably distinguishes them from NELSON.

III. Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
2. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3652

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.
5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600